

SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT
FOR CACHING DOMAIN NAME SYSTEM INFORMATION ON A
NETWORK GATEWAY

ABSTRACT OF THE DISCLOSURE

A system, method and computer program product is provided for caching domain name system (DNS) information on a network gateway. In particular, a network gateway that interfaces one or more customer premises equipment (CPE) devices to an IP network maintains a centralized on-board cache for storing domain names and corresponding IP addresses. The domain names and IP addresses in the cache are used by the network gateway to resolve DNS queries generated by application programs running on the CPE devices in a manner that is transparent to the CPE devices and that does not expend CPE resources. The cache may be initially loaded by an attached CPE or an external network entity and is continuously populated with information extracted from DNS messages exchanged between a CPE device and the external IP network.